

## **Environmental Science or General Biology**

LATE SUCCESSION IN A GROVE OF QUAKING ASPEN (*POPULUS TREMULOIDES*) NEAR GORE PASS, ARAPAHO NATIONAL FOREST, GRAND COUNTY, COLORADO. J. E. Hartig, J. E. Carter, N. M. Klar and J. W. Ferner\*.  
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In 1980, a research team from Thomas More College, began to monitor successional processes in a grove of Quaking Aspen (*Populus tremuloides*) at a site 2950m in elevation near Gore Pass, Arapaho National Forest, Grand County, Colorado. On eight visits to the site over a twenty-four year period samples were made along an east to west transect through the grove. The larger plots (100m<sup>2</sup>) measured trees >4m in height and 10m<sup>2</sup> plots sampled saplings <4m tall. Importance values were calculated for these data using the sum of relative frequency, relative density and relative coverage. Ground cover species composition and percentage coverage were determined from 1m<sup>2</sup> plots. Vertebrate sightings in the area were also noted. Over the 24 year period of the study, reproduction in Quaking Aspens declined and conifer seedlings, Engelmann Spruce (*Picea engelmannii*) and Subalpine Fir (*Abies lasiocarpa*), from the surrounding upper montane forest became established. Ground cover has remained rich with minimal impact from the encroaching conifers. Our data were compared to that in the literature. Long-term studies of this nature provide valuable information for the management of forests and in assessing trends in development.